

**Kansas Department of Health and Environment  
Bureau of Waste Management Policy 00-04**

**Related to**

**Requirement for Landfill Construction Quality Assurance (CQA)**

**Amended March 9, 2001**

**Background**

In 1993 the State of Kansas adopted new landfill design and operating regulations modeled after the requirements established pursuant to Subtitle D of the federal Resource Conservation and Recovery Act (RCRA). The intent of these regulations is to ensure that municipal solid waste (MSW) is disposed in a manner protective of the water, soil and air of the state. Specific design requirements for landfills are contained within K.A.R. 28-29-103(e), Liner performance standards; K.A.R. 28-29-104, Design standards; K.A.R. 28-29-114, Corrective action; and K.A.R. 28-29-121, Closure requirements. Protection of the environment can only be achieved through high quality construction of the required landfill components and related systems as outlined in the regulations. Accordingly, high quality construction is assured through proper construction quality control and construction quality assurance (CQA) techniques. CQA is a planned system of activities that provides the landfill owner and KDHE assurance that the facility was constructed as specified in the design documents. CQA includes inspections, verifications, audits, and evaluations of materials and workmanship necessary to determine and document the quality of the constructed facility. To assure high quality in the constructed facility CQA activities should be conducted by an independent party.

**Purpose**

This Bureau of Waste Management policy is intended to clarify the requirements for implementing a CQA plan for any construction activities at MSW landfills required under the above referenced regulations, and similar activities at other types of solid waste landfills.

**CQA Requirements**

A CQA plan must be submitted and approved by KDHE prior to any construction activities required under the following regulations: K.A.R. 28-29-103(e), ... -104, ... -114, and ... -121. The CQA plan should include a detailed description of all CQA activities that will be used during construction to manage the installed quality of the facility. The CQA plan should be tailored to the specific facility to be constructed and be completely integrated into the project's plans and specifications. The responsibilities and qualifications of the CQA personnel must be included in the plan. At the completion of construction, a CQA Certifying Engineer, who must be a professional engineer licensed to practice in Kansas, must certify that the facility has been constructed in accordance with the approved plans and specifications. A final CQA report must

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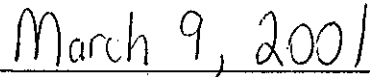
also be submitted to KDHE. The report should contain all applicable documentation, e.g., daily observation reports, sampling locations, test results, drawings of record, and other relevant data.

For Subtitle D landfills only, all CQA personnel and the CQA Certifying Engineer must be employed by an organization that operates independently of the landfill contract operator, construction contractor, owner and permit holder. Conversely, CQA personnel and the CQA Certifying Engineer for Small Arid Landfills and other solid waste landfills exempt from the Subtitle D regulations are not required to be independent parties from the owner, operator, or contractors.



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Director, Bureau of Waste Management



Date